# Working with Fractions, Decimals, and Percents 

Worked Examples

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Now let's compute exactly.
Your raise is $(.20)(\$ 29,450)=\$ 5,890$.
So your new salary is $\$ 29,450+\$ 5,890=\$ 35,340$.
(Yes, I used my calculator for this part.)

## A sweater is on sale for $27 \%$ off. The original price was $\$ 79.99$. What is the sale price?

First, let's estimate. The sweater was originally about $\$ 80$, and the discount is about $25 \%$, or $1 / 4$ of that. It's easy for me to figure in my head that $1 / 4$ of 80 is 20 , so I know the discount is about $\$ 20$. So the sweater should cost about $\$ 60$.

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Now let's compute the exact answer:
The discount is $(.27)(\$ 79.99)=\$ 13.4982$ (yes, I used my calculator).
Since we don't use fraction of pennies, the discount will actually be $\$ 13.50$.
So the sweater will actually cost $\$ 74.99$ - $\$ 13.50=\$ 61.49$.

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We slightly underestimated the price, because we slightly overestimated the discount when we said that $18 \%$ was about $20 \%$. But our estimate is pretty close.

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Note that $1 / 5=20 \%$ is one of the common fractions, so we could have written the percent as soon as we recognized it.

